2-4. Using other driving systems

Cruise control (if equipped)

Use the cruise control to maintain a set speed without using the accelerator.



- 1 Indicator
- 2 Cruise control switch

n Set the vehicle speed



Turn the ON-OFF button ON.

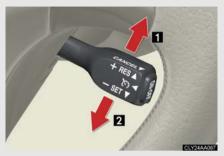
Push the button once more to deactivate the cruise control.





Accelerate or decelerate to the desired speed and press the lever down to set the cruise control speed.

n Adjusting the speed setting



- 1 Increase speed
- 2 Decrease speed

Hold the lever until the desired speed setting is obtained.

n Canceling and resuming regular acceleration



1 Cancel

Push the lever towards you to cancel cruise control.

The speed setting is also canceled when the brakes are applied.

2 Resume

To resume cruise control and return to the set speed, push the lever up.

n Fine adjustment of the set speed

Adjustment of the set speed by approximately 1.0 mph (1.6 km/h) can be made by lightly pressing the lever up or down and releasing it.

n Cruise control can be set when

- 1 The shift lever is in the D or 4 (standard type) or D, 4 or 5 range of S (multi-mode type).
- 1 Vehicle speed is between approximately 25 mph (40 km/h) and 125 mph (200 km/h).

n Accelerating

The vehicle can be accelerated normally.

n Automatic cruise control cancellation

The set speed is automatically cancelled in any of the following situations.

- 1 Actual vehicle speed falls more than 10 mph (16 km/h) below the preset vehicle speed
 - At this time, the memorized set speed is not retained.
- 1 Actual vehicle speed is below 25 mph (40 km/h)
- VSC is activated

n If the cruise control indicator light flashes

Turn the ON-OFF button off once, and then reactivate the system.

If the cruise control speed cannot be set or if the cruise control cancels immediately after being activated, there may be a malfunction in the cruise control system. Have the vehicle inspected by your Lexus dealer.

n To avoid operating the cruise control by mistake

Keep the ON-OFF button off when not in use.

n Situations unsuitable for cruise control

Do not use cruise control in any of the following situations.

Doing so may result in control of the vehicle being lost and could cause serious or fatal accident.

- 1 In heavy traffic
- 1 On roads with sharp bends
- 1 On slippery roads, such as those covered with rain, ice or snow
- 1 On steep hills
- 1 On winding roads

2-4. Using other driving systems

Dynamic laser cruise control (if equipped)

Dynamic laser cruise control supplements conventional cruise control with a vehicle-to-vehicle distance control. In the vehicle-to-vehicle distance control mode, the vehicle automatically accelerates or decelerates in order to maintain a set following distance from vehicles ahead.



- 1 Indicator
- 2 Display
- R Cruise control switch
- 4 Distance switch

n Select cruise mode



Selecting vehicle-to-vehicle distance control mode

■ Turn the ON-OFF button ON.

Push the button once more to deactivate.



Selecting conventional constant speed control mode

■ Turn the ON-OFF button ON.

Push the button once more to deactivate.

Vehicle-to-vehicle distance control mode is always reset when the engine switch is turned to the ON position.

Switch to constant speed control mode. (push and hold for approximately one second)

n Driving in the selected cruise control mode



Accelerate or decelerate to the desired speed and press the lever down to set.

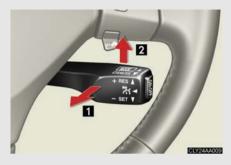
n Adjusting the speed setting



- 1 Increase speed
- 2 Decrease speed

Hold the lever until the desired speed setting is displayed.

n Canceling and resuming the speed setting



1 Cancel

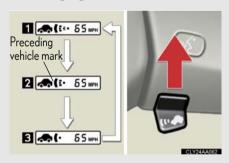
Push the lever towards you to cancel cruise control.

The setting is also canceled when the brakes are applied.

2 Resume

To resume cruise control and return to the set speed, push the lever up.

n Changing the vehicle-to-vehicle distance



Each push of the switch toward you changes the vehicle-to-vehicle distance

- 1 Long
- 2 Medium
- **3** Short

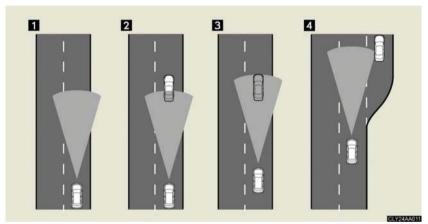
The vehicle-to-vehicle distance is automatically set to the long mode when the engine switch is turned to the ON position.

A mark will be displayed to indicate the presence of the vehicle if a vehicle is running ahead of you.

Driving in vehicle-to-vehicle distance control mode

This mode employs a laser radar sensor to detect the presence of vehicles within 400 ft. (120 m) ahead and to judge the distance between your vehicle and those vehicles.

Note that vehicle-to-vehicle distance will close when traveling on long down-hill slopes.



■ Example of constant speed cruising (when there are no vehicles ahead):

When set to 62 mph (100 km/h)

The vehicle travels at the speed set by the driver. The desired vehicle-to-vehicle distance can also be set by operating the vehicle-to-vehicle distance switch.

Example of deceleration cruising (when the vehicle ahead is driving slower than the set speed):

When fixed speed cruising is set at 62 mph (100 km/h) and the vehicle ahead is driving at 50 mph (80 km/h)

When a vehicle is detected running ahead of you, in the same lane, the system automatically decelerates your vehicle. When a greater reduction in vehicle speed is necessary, the system applies the brakes. A warning tone warns you when the system cannot decelerate sufficiently to prevent your vehicle from closing on the vehicle ahead.

Example of follow-up cruising (when following a vehicle driving slower than the set speed):

When the speed is set to 62 mph (100 km/h) and the vehicle ahead is driving at 50 mph (80 km/h)

The system continues follow-up cruising while adjusting for changes in the speed of the vehicle ahead in order to maintain the vehicle-to-vehicle distance set by the driver.

Example of acceleration (when there are no longer vehicles driving slower than the set speed in the lane ahead):

When the speed is set to 62 mph (100 km/h) and the vehicle ahead driving at 50 mph (80 km/h) is out of the lane

When the vehicle ahead of you executes a lane change, the system slowly accelerates until the set vehicle speed is reached. The system then returns to fixed speed cruising.

n Fine adjustment of the set speed

Adjustment of the set speed by the following speed can be made by lightly pressing the lever up or down and releasing it.

In the constant speed control mode: Approximately 1.0 mph (1.6 km/h)

In the vehicle-to-vehicle distance control mode:

U.S.A.: Approximately 5 mph (8 km/h)

Canada: Approximately 3 mph (5 km/h)

n Dynamic laser cruise control warning lights, display and buzzers

Warning lights, display and buzzers are used to indicate a system malfunction or to alert you to the need for caution while driving.



- Warning code
- CRUISE indicator light
- Master warning light

The warning codes indicate the following.

Warning code	Details	Correction procedures
E1	Indicates that the laser radar sensor is dirty or covered with ice.	Clean the sensor.
E2	Indicates that the system is unable to judge the vehicle-to-vehicle distance.	 Stop the wiper or switch the wiper to variable intermittent operation. Turn off the SNOW mode. Avoid direct sunlight. Wait until the weather becomes clear.
E3 CRUISE (Flashing)	Indicates that a system malfunction has been detected.	Turn off and restart the engine switch.

If the same code appears again after implementing the correction procedure, or if the cruise control cannot be set, contact your Lexus dealer.

n The dynamic laser cruise can be set when

- 1 The shift lever is in D or 4 (standard type) or D or, 4 or 5 range of S (multi-mode type).
- 1 Vehicle speed is between approximately 27 mph (45 km/h) and 85 mph (135 km/h).

n Accelerating

The vehicle can be accelerated normally.

n Automatically canceling vehicle-to-vehicle distance control

Vehicle-to-vehicle distance control driving is automatically canceled in the following situations.

- 1 Vehicle speed falls below 25 mph (40 km/h)
- 1 VSC is activated
- 1 The sensor cannot operate correctly because it is covered in some way.*
- 1 The windshield wipers are operating at high or low speed.*
- 1 The ECT SNOW switch is set to snow mode.*
- *: Vehicle-to-vehicle distance control driving must be reset by turning the ON-OFF button on again.

If vehicle-to-vehicle distance control driving is automatically canceled for any other reason, there may be a malfunction in the system. Contact your Lexus dealer.

n Automatically cancelling constant speed control

The set speed is automatically canceled in the following situations.

- 1 Actual vehicle speed is more than 10 mph (16 km/h) below the preset vehicle speed
 - At this time, the memorized set speed is not retained.
- 1 Vehicle speed falls below 25 mph (40 km/h)
- 1 VSC is activated

n Vehicle-to-vehicle distance settings

Select a distance from the table below. Note that the distances shown correspond to a vehicle speed of 55 mph (88 km/h). Vehicle-to-vehicle distance increases/ decreases in accordance with vehicle speed.

Distance options	Vehicle-to-vehicle distance
Long	Approximately 245 ft. (75 m)
Medium	Approximately 165 ft. (50 m)
Short	Approximately 100 ft. (30 m)

n Laser radar sensor



Always keep the sensor clean to ensure that the vehicle-to-vehicle distance control operates properly. (Some obstructions, such as snow, ice or plastic objects, cannot be detected by the obstruction sensor.)

Dynamic laser cruise control is canceled if an obstruction is detected.

n Certification

This product is a class I laser product complied with 21 C. F. R part 1040. 10. and 1040. 11.

n Before using dynamic laser cruise control

Do not overly rely on vehicle-to-vehicle distance control.

Be aware of the set vehicle speed. If automatic deceleration/acceleration is not appropriate, adjust the vehicle speed, as well as the distance between your vehicle and vehicles ahead by applying the brakes, etc.

n To avoid inadvertent cruise control activation.

Keep the ON-OFF button off when not in use.

n Situations unsuitable for dynamic laser cruise control

Do not use dynamic laser cruise control in any of the following situations. Doing so may result in inappropriate control of speed and could cause serious or fatal accident.

- 1 In heavy traffic
- 1 On roads with sharp bends
- 1 On winding roads
- 1 On slippery roads, such as those covered with rain, ice or snow.
- 1 Where there are sudden changes between sharp up and down gradients
- 1 At entrances to expressways
- 1 When weather conditions are bad enough that they may prevent the sensors from functioning correctly (fog, snow, sandstorm, etc.)
- Where buzzer can be heard often.

n When the laser radar sensor may not be correctly detecting the vehicle ahead

Apply the brakes as necessary when any of the following types of vehicles are in front of you.

As the sensor may not be able to correctly detect these types of vehicles, the proximity alarm $(\rightarrow P. 158)$ will not be activated, and an accident may result.

- 1 Vehicles that cut in suddenly
- 1 Vehicles traveling at low speeds
- 1 Vehicles that are not moving
- 1 Vehicles with small rear ends (trailers with no load on board etc.)
- 1 Motorcycles traveling in the same lane

n Conditions under which the vehicle-to-vehicle distance control may not function correctly

Apply the brakes as necessary in the following conditions as the laser radar sensor may not be able to correctly detect vehicles ahead, and an accident may result.

- 1 When water or snow thrown up by the surrounding vehicles hinders the functioning of the sensor
- 1 When your vehicle is pointing upwards (caused by a heavy load in the luggage compartment, etc.)
- 1 When the road curves or when the lanes are narrow
- 1 When steering wheel operation or your position in the lane is unstable

n To ensure the laser radar sensor functions correctly

Do not do the following to the sensor as doing so may cause the sensor not to function correctly and could result in an accident.

- 1 Stick or attach anything to them
- 1 Leave them dirty
- 1 Disassemble, subject them to strong shocks
- 1 Modify or paint them
- 1 Replace them with non-genuine parts

2-4. Using other driving systems

Driving assist systems

To help enhance driving safety and performance, the following systems operate automatically in response to various driving situations. Be aware, however, that these systems are supplementary and should not be relied upon too heavily when operating the vehicle.

n ABS (Anti-lock Brake System)

Helps to prevent wheel lock when the brakes are applied suddenly, or if the brakes are applied while driving on a slippery road surface.

n Brake Assist

Generates an increased level of braking force after the brake pedal is depressed, when the system detects a panic stop situation.

n VSC (Vehicle Stability Control)

Helps the driver to control skidding when swerving suddenly or turning on slippery road surfaces.

n TRAC (Traction Control)

Maintains drive power and prevents the front wheels (2WD models) or all wheels (4WD models) from spinning when starting the vehicle or accelerating on slippery roads.

When the VSC/TRAC are operating



If the vehicle is in danger of slipping, or if the front wheels (2WD models) or all wheels (4WD models) spin, the slip indicator light flashes to indicate that the VSC/TRAC have been engaged.

A buzzer (intermittent) sounds to indicate that VSC is operating.

To disable TRAC and/or VSC

If the vehicle gets stuck in fresh snow or mud, TRAC and VSC may reduce power from the engine to the wheels. You may need to turn the system off to enable you to rock the vehicle in order to free it.

n Turning off TRAC



Quickly push and release the button to turn off TRAC.

The slip indicator light should come on.

Push the button again to turn the system back on.

n Turning off TRAC and VSC



Push and hold the button for more than 3 seconds while the vehicle is stopped to turn off TRAC and VSC.

The slip indicator light and VSC OFF indicator light should come on.

Push the button again to turn the system back on.

n Automatic reactivation of TRAC and VSC

Turning the engine switch OFF after turning off the TRAC and VSC systems will automatically re-enable them.

n Automatic TRAC reactivation

If only the TRAC system is turned off, the TRAC system will turn on when vehicle speed increases.

n Automatic TRAC/VSC reactivation

If the TRAC/VSC systems are turned off, the systems will not turn on even when vehicle speed increases.

n Sounds and vibrations caused by the ABS, brake assist, VSC and TRAC

- 1 A sound may be heard from the engine compartment when the engine is started or just after the vehicle begins to move. This sound does not indicate that a malfunction has occurred in any of these systems.
- 1 Any of the following conditions may occur when the above systems are operating. None of these indicates that a malfunction has occurred.
 - Vibrations may be felt through the vehicle body and steering.
 - A motor sound may be heard after the vehicle comes to a stop.
 - The brake pedal may pulsate slightly after the ABS is activated.
 - The brake pedal may move down slightly after the ABS is activated.

n The ABS does not operate effectively when

- 1 The limits of tire gripping performance have been exceeded.
- 1 The vehicle hydroplanes while driving at high speed on the wet or slick road.
- n Stopping distance when the ABS is operating will exceed that of normal conditions

The ABS is not designed to shorten the vehicle's stopping distance. Always maintain a safe distance from the vehicle in front of you in the following situations.

- 1 When driving on dirt, gravel or snow-covered roads
- 1 When driving with tire chains
- 1 When driving over bumps in the road
- 1 When driving over roads with potholes or roads with uneven roads

n TRAC may not operate effectively when

Directional control and power may not be achievable while driving on slippery road surfaces, even if the TRAC system is operating.

Do not drive the vehicle in conditions where stability and power may be lost.

n When the VSC is activated

The slip indicator light flashes and a warning buzzer sounds. Always drive carefully. Reckless driving may cause an accident. Exercise particular care when the indicator light flashes and a buzzer sounds.

n When TRAC and VSC are off

Be especially careful and drive at a speed appropriate to the road conditions. As these are systems to ensure vehicle stability and driving force, do not turn off TRAC and VSC unless necessary.

n Replacing tires

Make sure that all tires are of the same size, brand, tread pattern and total load capacity. In addition, make sure that the tires are inflated to the recommended tire pressure level.

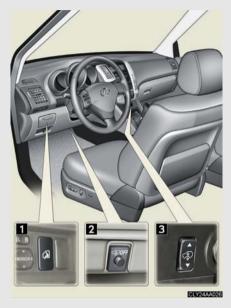
The ABS and VSC systems will not function correctly if different tires are fitted on the vehicle.

Contact your Lexus dealer for further information when replacing tires or wheels.

Electronically modulated air suspension (if equipped)

The electronically modulated air suspension allows the driver to control the vehicle's height in order to adjust for driving conditions.

Select the desired height with the height selector switch.



- Easy access mode switch
- Height control switch
- Height selector switch

Selecting vehicle height



- 1 Higher
- 2 Lower

Vehicle height can be adjusted only when the engine is running. The indicator light stops blinking, and comes on continuously to indicate that the mode shift is completed.

n Height modes

- N mode (normal mode): For ordinary driving
 Normal height
- 1 HI mode (high mode): For driving on bumpy roads
 1.2 in. (30 mm) higher than the normal height
 The HI mode is unavailable when the vehicle's speed exceeds 19 mph (30 km/h).
- 1 LO mode (low mode): For sporty driving (on winding road or high speed driving, etc.)
 - 0.6 in. (15 mm) lower than the normal height

Easy access mode



You can select this mode for easy access and easy loading of the vehicle.

If the engine is stopped when this mode is on, the vehicle height is lowered automatically. The indicator light stops blinking, and comes on continuously to indicate that the shift is completed. The easy access mode is available when N or LO mode is selected.

Disabling the height control



When the height control switch is pressed, the vehicle height returns to the mode last selected.

When the vehicle's speed exceeds 19 mph (30 km/h), the electronically modulated air suspension turns ON automatically.

n Automatic leveling function

Regardless of the number of occupants or the luggage load, vehicle height in any mode is always adjusted to a fixed height by the automatic leveling function.

n When N mode is selected

The vehicle height will lower about 0.3 in. (7 mm) when vehicle speed exceeds 62 mph (100 km/h).

The vehicle height will return to the normal height when vehicle speed is reduced to under 50 mph (80 km/h).

n When HI mode is selected.

The vehicle height will change to N mode when vehicle speed exceeds 31 mph (50 km/h) or driving at the speeds of 19 mph (30 km/h).

Even if vehicle speed is then reduced to under $31 \, \text{mph} (50 \, \text{km/h})$, the height will not return to HI mode.

n When LO mode is selected

The vehicle height will change to \ensuremath{N} mode when the engine is turned off.

n When easy access mode is selected

- 1 The vehicle height will change to N mode when vehicle speed exceeds 8 mph (12 km/h).
- 1 The vehicle height will change to N mode when the engine is restarted.

n The electronically modulated air suspension will not operate in the following cases:

- 1 The underbody of the vehicle is touching the surface of the road.
- 1 The area around the suspension is covered with ice.

The indicator lights will blink, turn off and then turn on continuously to indicate that the electronically modulated air suspension is not operational.

To re-enable operation, turn off the engine and then restart it.

${f n}$ Even if you hear an operating noise

This does not indicate a problem in the electronically modulated air suspension.

${f n}$ If there is a problem somewhere in the electronically modulated air suspension

The height control OFF indicator light will behave as follows:

- 1 The light will not come on when the engine switch is turned on.
- 1 The light will blink.

Although the vehicle may be driven, have the vehicle inspected by your Lexus dealer.

A CAUTION

n The electronically modulated air suspension must be turned OFF in the following circumstances:

Otherwise, the automatic leveling function may cause the vehicle's height to change, resulting in an unexpected accident.

- 1 When driving through water such as shallow streams (Put the vehicle height in HI mode and turn off the electronically modulated air suspension. Drive at 19 mph [30 km/h] or slower.)
- 1 When jacking up the vehicle, installing tire chains or tying the vehicle with chains/ wires for transportation via flat bed truck (Turn off the electronically modulated air suspension and stop the engine.)
- 1 When the vehicle must be towed (Put the vehicle height in N mode and turn off the electronically modulated air suspension.)
- 1 When the vehicle gets stuck (Turn off the electronically modulated air suspension.)
- 1 When disconnecting a trailer (Put the vehicle height in LO mode and turn off the electronically modulated air suspension.)

n Selecting the correct height mode

Observe the following precautions to prevent accidents.

Failure to do so may cause damage to parts of the vehicle, as well as dangerous handling characteristics, which may lead to fatal or injury accidents.

- 1 Before you lower the vehicle's height or select the easy access mode, check under the vehicle to make sure that no one is there.
- 1 The HI mode should be used for off-road driving conditions. As the vehicle's center of gravity is higher in this setting, the vehicle may become unstable when turning abruptly.
- 1 Do not select HI mode when you load cargo on the roof luggage carrier. This may result in a loss of control or vehicle rollover.

⚠ NOTICE

${f n}$ Be careful in any place where overhead space is limited.

When changing to a higher mode or after unloading, the vehicle height will rise. This may cause damage to the vehicle.

- ${f n}$ Do not select LO mode when driving on bumpy roads.
 - If the underbody of the vehicle touches a rugged road surface, the vehicle may be damaged.
- n Do not change the vehicle height frequently.

The compressor might overheat and cause the operation to stop.